

BULAT, A.

Current problems of the utilization of wood raw materials in the production of plywo od.

p. 206 (Przemysl Drzewny. Vol. 7, no. 7, July 1956, Warszawa, Poland)

Monthly Index of East European Accessions (FEAI) LC. Vol. 7, no. 2,
February 1958

BULAT, A.

Current problem of the production of plywood for export. p. 232.
(PRZEMYSŁ DRZEWNY. Vol. 7, no. 8, Aug. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

ACC NR: AT6012890

SOURCE CODE: UR/0000/65/000/000/0112/0118

AUTHOR: Bulat, A. A.; Denisov, V. G.; Kuz'minov, A. P.; Onishchenko, V. F.; Rozanov, Yu. A.; Sil'vestrov, M. M. 39

ORG: None

TITLE: An integral method for evaluating the effective training level of operators in control systems

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 112-118

TOPIC TAGS: man machine communication, electrophysiology, specialized training, training procedure, human engineering

ABSTRACT: The authors consider the dynamics of the process by which an operator acquires skill in control and the degree to which training is effective in an attempt to solve the problem of adaptation of an operator to the system which he controls. Factors affecting the speed at which working habits are formed are discussed. It is pointed out that the purely psychological method for evaluating the level of training effectiveness is not sufficiently complete and objective. Electrophysiological methods are used for a fuller evaluation of the habit formation process using electroencephalograms, electromyograms, electrocardiograms, cutaneogalvanic reactions, and pneumograms to study changes in the neuropsychic makeup of the operator. The results of tests show a reduction in the bioelectric activity of the muscles and high-frequency

Card 1/2

BULAT, Adam; PALKA, Janusz

Production technology of "Bipan" boards. Przem drzewny 12 no.8:
8-10 '61.

BULAT, A., mgr inz.

Simplified charts for the selection of machining conditions.
Mechanik 34 no.8:436 '61.

BUAT, Adam, inzh.

Cooling hard-alloy cutting tools with an aerosol jet. Stan. i instr.
35 no.7:13-15 JI '64. (MIRA 17:10)

1. Institut obrabotki metallov rezaniyem, Pol'skaya Narodnaya
Respublika.

MIKHAYLOVA, V.N.; BULAT, A.D.

Nature of the unsaturated bond in aryl allyl sulfones. Zhur.
ob. khim. 35 no.8:1361-1364 Ag '65. (MIRA 18:8)

1. Leningradskiy khimiko-farmatsevticheskiy institut.

BULAT, Emilia, dr.; BERCOVICI, Miriam, dr.

Study of the antigens from the serum of children with Bouillaud-Sokolski rheumatism, using the immunoelectrophoretic method.
Med. intern. 15 no. 7:793-794 JI '63.

1. Lucrare efectuata in Clinica de pediatrie a I. P. S. M. F. de la Spitalul clinic "Fundeni", Bucuresti.
(ARTHRITIS, RHEUMATOID) (RHEUMATIC HEART DISEASE)
(ANTIGENS) (IMMUNOELECTROPHORESIS)
(BLOOD PROTEIN DISORDERS)

S/196/62/000/020/010/021
E194/E155

AUTHOR: Bulat, M.P.

TITLE: The development of integrated mechanisation and automation in the Uralelektromotor Works

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.20, 1962, 13, abstract 20 I 81. (In the collection: 'Puti razvitiya mashinostr. Orenburgsk. ekon. r-na' ("Trends of Engineering Development in the Orenburg Economic Region"), Sverdlovsk - Orenburg, 1960, 17-21).

TEXT: The 'Uralelektromotor' Works in Mednogorsk is a factory for the mass production of induction motors series A and AO of numbers 4 and 5 frame sizes, magnetic starters, push-button control units and the Uralets domestic vacuum cleaner. Partial reconstruction of the works, and mechanisation and automation of manufacturing processes, more than trebled the output over the period 1952-1958 with only 13% increase in labour force. Although reconstruction of the factory is still not quite complete, the works has exceeded the scheduled output of motors by 6%, of magnetic starters by 40%, and of push-button control units by 61%.
Card 1/2

The development of integrated ...

S/196/62/000/020/010/021
E194/E155

The development plan for 1959-1965 provides for an increase of 85%. Improved manufacturing processes will be developed; special automatic equipment and additional flow- and automatic-production lines will be installed. The processes of electro-plating, presswork, winding, insulating, transport and others will be mechanised. Individual measures taken in the press department, the apparatus assembly shops, the paint shop and the department for machining frames and shafts are considered. The article discusses the case for flexible automatic lines to machine cast-iron motor frames and end-shields, and for specialised equipment for machining the aluminium-alloy parts; possible new methods of making motor shafts by press-forming followed by centreless grinding, or by making shafts from hollow tubes by rolling followed by centreless grinding, are considered.

[Abstractor's note: Complete translation.]

Card 2/2

OZHEREL'YEV, D.I.; GAYVORONSKAYA, M.I.; BULAT, N.D.

Using natural sorbents for the adsorption of certain fluid vapors.
Bent. gliny Ukr. no.2:108-115 '58. (MIRA 12:12)

1. Donetskii industrial'nyy institut.
(Adsorption)

OZHEREL'YEV, D.I.; BULAT, N.D.

Using the Crimean clay for insulating oil regeneration by
the contact method. Bent.gliny Ukr. no.3:158-162 '59.
(MIRA 12:12)

1. Donetskiiy industrial'nyy institut im. N.S.Khrushcheva.
(Crimea--Bentonite) (Oil reclamation)

BULAT, N.L.; KOROTKOV, V.F.; FAYVILEVICH, G.A.; ZHURENKOV, P.M.

Microspectral analysis. Sbor.trud. TSNIICEM no.31:34-40 '63.

(MIRA 16:7)

(Steel--Metallography) (Steel--Spectra)

YERMOLENKO, Nikolay Fedorovich; BULAT, O., red.; VOLOKHANOVICH, I.,
tekhn.red.

[Minor elements and colloids of the soil] Mikroelementy i
kolloidy pochv. Minsk, Izd-vo Akad.nauk BSSR, 1960. 290 p.
(Trace elements) (Soil colloids) (MIRA 14:1)

Bulat, P. M. On asymptotic estimates of the average values of a fundamental function of the additive theory of numbers. Bull. [Izvestiya] Math. Mech. Inst. Univ. Tomsk 3, 104-110 (1946). (Russian)

If $X = \{x_i\}$ and $Y = \{y_j\}$ ($1 \leq i \leq k_1$, $1 \leq j \leq k_2$) are any two sequences of integers lying in the interval $(1, n)$, the function $f = f(x_1, \dots, x_{k_1}; y_1, \dots, y_{k_2}; n)$ is defined to be the number of integers in this interval which are expressible as an x_i , a y_j , or as a sum $x_i + y_j$. The author estimates the average values of f when k_1 and k_2 are fixed and of various orders of magnitude, in the three cases when (i) the sequences X and Y are varied in all possible ways, (ii) X and Y are identical and are varied in all possible ways and (iii) Y is fixed and X is varied in all possible ways. Explicit expressions for these averages in terms of binomial coefficients were given by N. P. Romanov [same Bull. 1, 190-204 (1937)] and form the starting point of the author's work.

R. A. Rankin (Cambridge, England).

Source: Mathematical Reviews,

Vol 8 No. 8.

FRIDRIKHSN, V.K., inzh.; SOKOLOVA, Z.N., inzh.; Primali uchastiye:
SOKOLOV, Ye.V., inzh.; ~~EMLAT, S.I.~~, inzh.; TANIN, R.V., inzh.;
KURBATOV, G.A., tekhnik; BURKOVA, T.D., tekhnik; LADYKA, M.A.,
laborant

Rolls on a semicontinuous hot rolling strip mill. Stal' 22
no.9:817-821 S '62. (MIRA 15:11)
(Rolls (Iron mills))

BUIAT, S.I.

Methods of investigating the temperature distribution in the cross
section of slabs being heated for rolling. Sbor. trud. TSNIICHM
no.32:56-57 '63. (MIRA 16:12)

PLEKHANOV, P.S.; GOLOVANENKO, S.A.; KOBYZEV, V.K.; BULAT, S.I.; MIL'TO,
Yu.R.; RYAZANOV, D.G.; BARANOVSKAYA, M.I.

Mastering the rolling of bimetal shapes for the agricultural
machinery industry. Stal' 25 no.10:922-927 O '65.

(MIRA 18:11)

1. Kuznetskiy metallurgicheskiy kombinat i TSentral'nyy nauchno-
issledovatel'skiy institut chernoy metallurgii im. I.P. Bardina.

BULAT, S.I.

Diagram of recrystallation of the second order for transformer
steel. Metalloved. i term. obr. met. no. 2:21.27 F '65.
(MIRA 18:12)

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
BULAT, V. 1007. Theory of Low-Pressure Discharge from an Incandescent Cathode Under Conditions of a Free System. (In Russian.) V. Bulat and S. Gvozdozer. <i>Journal of Technical Physics</i> (U.S.S.R.), v. 17, June 1947, p. 661-668. Gives results of a theoretical study of low-pressure discharge from a cathode heated to incandescence, in the special case when the discharge current is lower than the electron-emission capacity of the cathode at the incandescent temperature. The formulas and graphs derived from this analysis permit solutions of the problem of determining the voltage of the tube and the cathode drop when the gas pressure, discharge current, voltage, and dimensions of the tube are known.																													
140 ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION																													
EXON1 SY:0310A										EXON1 SY:0310A										EXON1 SY:0310A									

BULAT, Vuksan, ing., assistant prof. (Beograd, Generala Hanrisa 16)

Planning of scientific research. Tehnika Jug 17 no.2:379-384 F '62.

1. Mechanical Engineering Faculty of the University of Beograd.

(Research)

BULAT, Vuksan, dr inz., docent (Beograd, Generala Hanrisa 16)

A system of characteristic indexes for the evaluation of the prevailing conditions and trends in production. Tehnika Jug 18 no.6:Suppl.:Organizacija rada 13 no.6:1166-1170 Je '63.

1. Direktor Poljoprivredno-industrijskog kombinata "Delises", Vladicin Han.

BULAT, Vuksan, dr inz., docent; VEJNOVIC, Jovan, psiholog, strucni saradnik; MACKOVIC, Rajko, ekonomista

Better use of work time results in increased labor productivity. Tehnika Jug 18 no. 8: Supplement: Organizacija rada 13 no. 8: 1573-1596 Ag '63.

1. Masinki fakultet Univerziteta u Beogradu, clan Redakcionog odbora i redaktor za masinstvo i elektro-tehniku, "Tehnika" (for Vuksan).
2. Republicko vece SSJ za Srbiju, Beograd (for Vejnovic).
3. Sekretar Republickog veka SSJ za Srbiju, Beograd (for Mackovic).

MOJAT, Vukšan, dr inž., dočent (Beograd, Generala Mursisa 16)

Basic premises for the system of personal income distribution
according to work results in various educational institutions.
Tehnika Jug 19 no. :Suppl.:Organizacija rada 14 no. 2:372-374 F '64.

1. Faculty of Mechanical Engineering, University of Belgrade,
Member of the Board of Editors, "Tehnika - [Supplement:]
'Organizacija rada'".

BULAT, Vuksan, dr inz.

Expedient program orientation, and integration dynamics.
Tehnika Jug' 19 no.5:Suppl:Organizacija rada 14 no.5:963
My '64.

BULAT, V.L.

GROSZKOWSKI, Janusz, professor, doktor, inzhener; BULAT, V.L., [translator]; SHEMBEL', B.K., redaktor; TELESNIN, N.L., redaktor; HIKI-FOROV, A.N., tekhnicheskiiy redaktor

[Generation of high-frequency oscillations and the stabilization of frequency. Translated from the Polish] Generirovanie vysokochastotnykh kolebaniy i stabilizatsiya chastoty. Per. s pol'skogo B.L.Bulata. Pod red. B.K.Shembelia. Moskva, Izd-vo inostrannoi lit-ry, 1953. 363 p. (Oscillators, Electron-tube) (MLRA 8:7)

S/058/63/000/001/004/120
A059/A101

AUTHOR: Bulat, V. L.

TITLE: Some ways of approach to the explanation of the magnetic field theory

PERIODICAL: Referativnyy zhurnal, Fizika, no. 1, 1963, 9, abstract 1 A86
(Uch. zap. Mosk. gos. zaochn. ped. in-t., no. 9, 1962, 237 - 253)

TEXT: The author examines 9 methods of giving a course of electromagnetism at a secondary school and a school of higher education in such a way that the introduction of the fictitious concept of magnetic mass can be omitted, and the whole matter explained referring only to the interaction phenomenon of the magnetic field and the conductor with the current. The concept of the magnetic field, the quantities by which it is characterized, and its units of measure are derived by means of the mechanical forces which act, in the magnetic field, on the current (Ampère's forces), on the moving electric charges (Lorentz' forces), or by means of the inductive e.m.f. The concept of the fictitious magnetic mass

Card 1/2

Some ways of approach to the explanation of...

8/058/63/000/001/004/120
A059/A101

can be introduced later, when permanent magnets are studied, on the basis of the analogy between the concept of the magnetic moment of the turn and the magnetic moment of the magnet.

[Abstracter's note: Complete translation]

Card 2/2

S/058/60/000/004/012/016
A003/A001

Translation from: Referativnyy zhurnal. Fizika, 1960, No. 4, p. 255, # 9381

AUTHOR: Bulat, V.L.

TITLE: Excitation of Electromagnetic Oscillations in a Plasma by an Electronic Beam

PERIODICAL: Uch. zap. Mosk. gos. zaochn. ped. in-t. Ser. fiz.-matem., 1959, No. 3, pp. 240-251

TEXT: The results are reported of an experimental investigation of electromagnetic oscillations originating in a plasma excited by an electronic beam in a long and narrow tube with a gas pressure of 10^{-1} - 10^{-3} mm Hg. The frequency and the intensity of the oscillations is mainly determined by the value of the discharge current, the pressure and the nature of the gas. The frequency range of the oscillations generated lies within the limits of 10^4 - 10^5 cps, due to which fact the radiation observed cannot be attributed to the oscillations of the electrons or the ions of the plasma proper. It is attempted to explain the

Card 1/2

S/058/60/000/004/012/016
A003/A001

Excitation of Electromagnetic Oscillations in a Plasma by an Electronic Beam
oscillations observed as oscillations of an unsteady electric discharge in the
tube, which are alternating sparks and extinctions.

N.A. Khizhnyak

Translator's note: This is the full translation of the original Russian
abstract.

✓
B

Card 2/2

S/058/63/000/003/026/104
A062/A101

AUTHOR: Bulat. V. L.

TITLE: On the structure of the discharge produced by an electron beam in a plasma

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 12, abstract 3668 ("Uch. zap. Mosk. gos. zaochn. ped. in-t", 1962, no. 9, 11 - 33)

TEXT: A study is made on the structure of the electric discharge produced by an electron beam of 200 - 700 eV energy in a gas at 10^{-1} - 10^{-3} mm Hg pressure. Within a 70 cm long discharge tube with a diameter of ~ 3 cm, is disposed an electron gun as well as a metallic grid whose potential exerts an influence on the structure of the discharge. Various forms of the electric discharge, determined by the gas pressure and the electrical parameters of the circuit, are described. A qualitative view on the discharge structure at relatively high pressures permits to evaluate a number of characteristic parameters of the periodical structure (along the axis of the discharge tube) of the electron beam. There is a satisfactory agreement with the experiment. There are 16 references.
[Abstracter's note: Complete translation] Ye. Meylikhov

Card 1/1

BULAT, V.L.

Various methods of approach to the definition of the theory
of magnetic fields. Uch. zap. MGZPI no.9:237-253 '62.

(MIRA 16:6)

(Magnetic fields)

GROSHKOVSKIY, Yanush [Groszkowski, Janusz], prof., Dr.inz.; BULAT, V.L.,
dotsent [translator]; REYKHRUDELI, E.M., prof., red.; TELESNII,
N.L., red.; GRIBOVA, M.P., tekhn.red.

[High-vacuum technology] Tekhnologiya vysokogo vakuuma. Pod red.
E. M. Reikhrudelia. Moskva, Izd-vo inostr.lit-ry, 1957. 539 p.
(Vacuum) (MIRA 12:2)

BULAT, Vuksan P., inzinjer, docent honorarni saradnik

Possibility of utilizing the criterion of the critical point in setting the line of business in an enterprise. Zbornik rad Mas inst SAN no.70:139-180 '61.

1. Universitet u Beogradu i Masinski instut Srpske akademije nauka i umetnosti.

(Critical point) (Industrial management)

BULATENKO, I.

BULATENKO, I., upravlyayushchiy; GOLOVIN, I., inzhener-tekhnolog.

We have mastered high-grade wheat milling at a mill of the state
farm flour milling system. Muk.-elev.prom. 20 no.6:27-29 Je '54.
(MIRA 7:8)

1. Rostovskiy Oblmel'trest.
(Wheat milling)

KOZLOV, K.D.; prinimali uchastiye: ZAGORUYKO, K.Ye; ROZOVA, Z.I.; BULATETS-
KAYA, T.P.; TREYSTER, F.Z.; SHCHUKINA, T.M.; ZAYTSEVA, N.Ye.; KRYLO-
VA, L.S.; AMEL'YAN, G.Ye.; BAYDAKOV, N.N.; RYZHKOV, A.N., red.; ME-
MESHKINA, L.I., tekhn. red.

[Economy of Sakhalin Province; statistical collection] Narodnoe kho-
ziaistvo Sakhalinskoi oblasti; statisticheskii sbornik. Iuzhno-Sa-
khalinsk, Sakhalinskoe knizhnoe izd-vo, 1960. 103 p. (MIRA 14:6)

1. Sakhalin (Province) Statisticheskoye upravleniye. 2. Kollektiv
rabotnikov Statisticheskogo upravleniya Sakhalinskoy oblasti (for
all except Ryzhkov, Memeshkina). 3. Nachal'nik Statisticheskogo
upravleniya Sakhalinskoy oblasti (for Kozlov)
(Sakhalin--Statistics)

BULATKIN, A.S.

Automatic control of a machine for producing hollow flooring.
Trans. stroi. 13 no.12: 30-31 D'63 (MIRA 17:7)

1. Glavnyy energetik Sergelinskogo zavoda ZhBSHik.

BULATKIN, I.K.; DENISOV, G.G.

Engineering of interval oriented hydrochloric acidization with the
use of hydraulic perforator. Nefteprom. delo no.8:12-17 '63.

(MIRA 17:4)

1. Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i
gazovoy promyshlennosti.

BULATKIN, I.K.; ZAGORUYKO, A.A.; KHARLANOV, V.A.; CHERNYY, S.Ya.

Barrier flooding of level B₁ of the Bakhmet'yevo field.
Nefteprom. delo no. 2:14-19¹ '64. (MIRA 17:4)

1. Zhirnovskoye neftepromyslovoye upravleniye i Volgogradskiy
nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti.

BULATKINA, Z.G.; DANILEVICH, M.G., professor, zaveduyushchiy; SHUTOVA, N.T.,
~~professor~~, direktor.

Changes in the renal function in scarlet fever. Vop.pediat. 21 no.3:24-
28 My-Je '53. (MLRA 6:7)

1. Kafedra infektsionnykh bolezney u detey Leningradskogo gosudarstvennogo
pediatricheskogo meditsinskogo instituta (for Bulatkina and Danilevich).
2. Leningradskiy gosudarstvennyy pediatricheskiy meditsinskiy institut
(for Shutova). (Scarlet fever)

BULATKINA, Z.G., kand.med.nauk; TAL'VIK, E.I.

Disorder in kidney function following changes in the urine
during scarlet fever. Padiatriia 42 no.1:12-15 Ja'63.

(MIRA 16:10)

1. Iz kafedry infektsionnykh zabolevaniy u detey (zav. - dotsent
A.T.Kuz'micheva) Leningradskogo pediatricheskogo instituta i
detskoy infektsionnoy bol'nitsy Sverdlovskogo rayona Leningra-
da (glavnyy vrach N.A.Nikitina).

(SCARLET FEVER) (KIDNEYS—DISEASIS)
(URINE—ANALYSIS AND PATHOLOGY)

BULATNIKOV, A. A.

Engineers G. A. Agranovskiy, N. M. Levitanskaya, A. G. Malinin (NIIAvtoprom), G. Ye. Litvin, A. A. Bulatnikov (Automobile Works imeni Likhachev) were awarded the First N. A. Minkevich Prize for the paper "Investigation and Introduction of a Standard, Controlled Atmosphere for Heat Treatment and Chemical-Heat Treatment of Steel", wherein these authors propose an original method of purification of town gas by passing it through zinc-chromium catalysts.

Results of the 1958 Competition for Obtaining imeni D. K. Chernov and imeni N. A. Minkevich Prizes, Metallovedeniye i termicheskaya obrabotka metallov, 1959, No. 6, pp 62-64

BULATNIKOV, G.V.

Removal of shields from NR-type relays. Avtom. telem. i svyaz' 3
no.8:37 Ag '59. (MIRA 13:2)

1. Starshiy elektromekhanik Kurskoy distantzii signalizatsii i svyazi
Moskovsko-Kursko-Donbasskoy dorogi.
(Electric relays)
(Railroads--Electronic equipment)

BULATNIKOV, N.V.

PLANS I BOOK EXPLANATION 807/3660

Mashinno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti.
Tsentral'noye pravleniye. Sektsiya razvitiya i modernizatsii obratnuyuzh
Modernizatsiya i remont obratnuyuzhnykh mashinostroitel'nykh zavodov (Modernization
and Repair of Machine-Building Plant Equipment) Moscow, Mashst, 1999.
281 p. Krutaya sliz inserted. 6,100 copies printed.

Ed. (Title page): N.A. Noskin, Candidate of Technical Sciences; Ed. (Inside book):
A.T. Popov, Engineer; Tech. Ed.: V.D. Kizilov, Candidate of Technical Sciences; Ed. for literature on
metalworking and machine-tool construction (Mashst): S.D. Kozlov, Engineer;
Editorial Board: N.A. Noskin (Chairman), Candidate of Technical Sciences;
V.D. Kizilov, Engineer; V.D. Pashov, Engineer; V.I. Mikhaylovskiy, Engineer;
and V.F. Golov, Engineer.

PURPOSE: This collection of articles is intended for technical personnel dealing
with modernization and overhaul of equipment.

COVERAGE: The articles in this collection deal with the basic trends and a number
of specific problems in the modernization of the machine industry. Modernization
of foundry, forging-shop, and crane equipment and problems in the overhaul of
equipment repair are discussed. Information is given on the use of unitized
subassemblies in the modernization of metal-cutting machine tools, on measures
for prolonging the life of forging hammers, on methods of automatic repair of
electric hard facing of worn parts, on refabrication, and on refabrication of
forging-hammer foundations. No personalities are mentioned. References follow
several of the articles.

TABLE OF CONTENTS:

Manuuvr, I.D. [Engineer]. Basic Trends in the Modernization of Press Equipment	3
Sheryagold, Ye.M. [Engineer]. Prolongation of the Life of [Piston] Rods for Forging Hammers	31
Donskikh, V.M. [Engineer, VILIZMASH]. Basic Trends in the Modernization of Foundry Equipment	39
Ostrovskiy, M.I. [Engineer]. Automation of Metal-Cutting Machine Tools	49
Ivanov, V.M. [Engineer, VTI]. Organization of Heavy Repair of Tug Boilers and Inspection of Repair-Work Quality	61
Plakunikh, S.V. [Engineer, Khark'ovskiy zavod transportnykh mashinostroitel'nykh materialov (Khark'ov Plant of Transportation - Machinery Construction Lenz Malyubet)]. Repair of Worn Vary of Metal-Cutting Machine Tools by External Broaching	108
Perlov, N.A. [Engineer, Remashtravst]. Use of Unitized Subassemblies in the Modernization of Metal-Cutting Machine Tools	112
Khramov, P.A. [Candidate of Technical Sciences, VILIZMASH]. Basic Trends in the Modernization of Woodworking Equipment	133
Mikhaylovskiy, G.M. [Candidate of Technical Sciences, VILIZMASH]. Basic Trends in the Modernization of Existing Crane Equipment	136
Rise, V.F. [Engineer]. Modernization and Repair of Crane Equipment	155
Shibakin, Ye.I. [Engineer, Uralsmashrepar]. Modernization of Unique Equipment	169

Card 3/4

BULATNIKOV, V.A., kand. tekhn. nauk

"Maximum pressure increase during direct impact". Sbor. nauch.
trud. Dnepr. inzh.-stroit. inst. 18:33-42 '61 (MIRA 17:7)

BULATNIKOV, V.I.; ZHUPAN, V.F.

Blood supply of tendons in various sutures of the tendon. Vest. khir.
76 no.11:51-55 '55. (MLRA 9:4)

1. Iz gospital'noy khirurgicheskoy kliniki (nach-prof. I.S. Kolesnikov) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(MUSCLES, surg.

tendons, eff. of various sutures on blood supply)

RODOV, A.S., inzh.; OVUMYAN, G.G., kand.tekhn.nauk; BULATNIKOV, V.S.;
ADAM, Ya.I.

Attachment for shaving on gear-milling machines. Vest.mashinostr.
42 no.8:72-73 Ag '62. (MIRA 15:8)
(Milling machines--Attachments)

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; VORONIN, V.I.; TKACHENKO, A.A.;
BULATNIKOV, Ye.A.; FREYDIN, L.M.; KOSINSKIY, V.F.

Testing carbon blocks in iron tapping troughs in blast furnaces.
Ogneupory 28 no.8:368-370 '63. (MIRA 16 :9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for
Pirogov, Leve, Krass). 2. Kommunar'skiy metallurgicheskiy zavod
(for Voronin, Tkachenko, Bulatnikov, Freydin, Kosinskiy).

L 32964-66 EWT(m)/EWP(j)/T IJP(c) RM/WW

ACC NR: AP6017331

(A)

SOURCE CODE: UR/0249/65/021/010/0019/0022

AUTHOR: Zul'fugarov, Z. G.; Bulatnikova, E. L.

ORG: Institute of Chemistry, VNIIolefin (Institut khimii VNIIolefin)

TITLE: Low-temperature copolymerization of ethylene with propylene and alpha-butylene using a chromium-chromic oxide catalyst

SOURCE: AN AzerbSSR. Doklady, v. 21, no. 10, 1965, 19-22

TOPIC TAGS: ethylene, propylene, copolymerization, polymerizaion catalyst, poly-ethylene plastic

ABSTRACT: The authors study the effect of adding propylene and alpha-butylene during polymerizaion of pure ethylene at low temperatures where the resultant product is a copolymer of extremely high molecular weight. For this purpose, ethylene was copolymerized with propylene and alpha-butylene at low temperatures. The catalyst was made up of chromium oxides on an aluminosilicate carrier. The solvent was "Ekstra" gasoline. The polymerization was done at a temperature of 75-80°C and a pressure of 35 atm. It is found that copolymerization of ethylene with lower olefins at low temperatures on a chromic oxide catalyst may be used to reduce the molecular weight of polyethylene while simultaneously reducing its crystallinity and increasing its elasticity. It was found that the catalyst has a clearly marked induction period of up

Card 1/2

L 32964-66

ACC NR: AP6017331

to one hour which is reduced when the catalyst concentration, temperature and pressure of the process are increased. Orig. art. has: 3 figures, 1 table.

SUB CODE: 11, 07/ SUBM DATE: 21May64/ ORIG REF: 002/ OTH REF: 002

Card 2/2

L 46997-66 EWP(j)/EWT(m)/T IJF(c) RM/WW

ACC. NR: AP6027270

(A)

SOURCE CODE: UR/0191/66/000/008/0004/0005

AUTHOR: Dalin, M. A.; Buniyat-Zade, A. A.; Bulatnikova, E. L.

ORG: none

TITLE: Synthesis and study of copolymers of ethylene and α -butylene

SOURCE: Plasticheskiye massy, no. 8, 1966, 4-5

TOPIC TAGS: copolymer, ethylene, butylene

ABSTRACT: Ethylene was copolymerized with α -butylene obtained by dimerization of ethylene on organometallic catalysts (instead of α -butylene resulting from dehydration of n-butanol). The copolymerization was carried out in autoclaves (1) under conditions in which the polymer precipitated (80-90°C) and (2) in solution (120-130°C). IR spectroscopic analysis of the product showed that when the initial gas contained 5.3 vol. % α -butylene, only 2 vol. % of the latter entered into the composition of the copolymer. The cracking resistance of the copolymer was found to exceed that of polyethylene obtained under the same conditions by a factor of 8 to 10. The copolymers showed a high degree of stability toward thermal-oxidative degradation. Of the antioxidants studied, the best was bis(5 methyl-3- α -phenylethyl-2-hydroxyphenyl) sulfide. The copolymer stabilized with this antioxidant had an induction period of about 250 min, whereas in an unstabilized sample this period was about 70 min. The induction period was found to increase with the crystallinity of the copolymer. The product of

Card 1/2

UDC: 678.742.2-137.424.01

L 46997-66

ACC NR: AP6027270

ethylene dimerization was kindly supplied by I. I. Plis'man, and bis(5-methyl-3- α -phenylethyl-2-hydroxyphenyl) sulfide by F. M. Yegidis, both of whom are thanked by the authors. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 2/2

5(4)

AUTHORS: Bulatnikova, Yu. I., Apel'baum, L. O. SOV/76-32-12-10/32
~~Temkin, M. I.~~

TITLE: The Poisoning of Ammonia Synthesis Catalysts by Hydrogen Sulfide, Traced With Radioactive Sulfur (Izucheniye otravleniya katalizatora sinteza ammiaka serovodorodom s primeneniye radioisotopov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 12, pp 2717 - 2724 (USSR)

ABSTRACT: The effect of H_2S on iron catalysts activated by Al_2O_3 , $Al_2O_3 + K_2O$ or K_2O alone was investigated. The effect on the $Fe + Al_2O_3$ catalyst is most easily explained. The poisoning is irreversible. Failure of the poisoning to ensue when 20% of the surface are covered with sulfur corresponds to the concept of surface effects, according to which the ammonia synthesis results predominantly in places with medium adsorption capacity. Therefore, the synthesis is, at first, not influenced by covering the strongly adsorbing points. Since, however, the weakly adsorbing

Card 1/3

The Poisoning of Ammonia Synthesis Catalysts by Hydrogen Sulfide, Traced With Radioactive Sulfur SOV/76-32-12-10/32

points do not participate in the synthesis reaction either, complete poisoning sets in when 80% of the surface are covered with sulfur. The formation of a monoatomic layer suffices for poisoning. With the $\text{Fe+Al}_2\text{O}_3+\text{K}_2\text{O}$ catalyst a temporary poisoning can be observed when less than 20% of the surface are covered with sulfur. Perhaps this can be explained by the uneven distribution of the sulfur due to the reduced mobility of the S-atoms. Generally speaking, this catalyst is not so easily poisoned as the simpler $\text{Fe+Al}_2\text{O}_3$ catalyst.

Probably K_2O reacts with H_2S which explains the high resistivity against poisoning. In this case potassium is bound as KAlO_2 , is not volatile, but still binds the hydrogen sulfide. The $\text{Fe+K}_2\text{O}$ catalyst easily loses K_2O , or rather the potassium volatilizes and deposits on the wall as K_2S . While Al_2O_3 stabilizes the finely dispersed structure of the catalyst, K_2O causes a greater intensitivity

Card 2/3

4 The Poisoning of Ammonia Synthesis Catalysts by Hydrogen Sulfide, Traced With Radioactive Sulfur SOV/76-32-12-10/32

towards H_2S . The formation of the FeS -film on the surface of the $Fe+Al_2O_3+K_2O$ catalyst ceases when the layer has reached a thickness of about 40 Å. There are 6 figures, 2 tables, and 20 references, 12 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova, Moskva
(Physico-Chemical Institute imeni L. Ya. Karpov, Moscow)

SUBMITTED: July 31, 1957

Card 3/3

BULATNIKOVA, Yu. I.: Master Chem Sci (diss) -- "A study of catalyst poisoning in the synthesis of ammonia by hydrogen sulfide using radiosulfur". Moscow, 1959. 8 pp (State Committee of the Council of Ministers USSR on Chemistry, Order of Labor Red Banner Sci Res Phys-Chem Inst im L. Ya. Karpov), 110 copies (KL, No 11, 1959, 115)

BULATOV, A.

TETERIN, M. (g. Kostroma); BULATOV, A.

Mechanization of hemp spinning. Prom.koop. no.4:7-8 Ap '57.
(MIRA 10:7)

1. Tekhnoruk arteli "Util'prom" (for Teterin).
2. Mekhanik arteli (for Bulatov).
(Hemp)

BULATOV, A.

Competition for a manual on traffic regulations is needed.

Za rul. 17 no.3:25 Mr '59.

(MIRA 12:5)

(Traffic regulations--Handbooks, manuals, etc.)

BULATOV, A.; TESLER, L.

Operation and improvement of truck dumpers. Muk.-elev.prom. 25
no.12:9-10 D '59. (MIRA 13:4)

1. Sverdlovskaya normativno-issledovatel'skaya stantsiya (for
Bulatov). 2. Glavnyy inzhener Kuybyshevskogo elevatora (for
Tesler).

(Dump trucks)

BULATOV, A.
ALONZOV, G.; *BULATOV, A.*; DEMIDOV, A., kandidat tekhnicheskikh nauk.

System of receiving, cleaning and drying grain grown on new lands.
Muk.-elev.prom. 20 no.12:4-8 D '54. (MLRA 8:3)

1. Gosudarstvennaya inspeksiya po kachestvu sel'skokhozyaystvennykh produktov Ministerstva zagotovok SSSR (for Alonzov).
2. Sverdlovskaya normativno-issledovatel'skaya stantsiya Zagotzerno (for Bulatov).
3. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov ego pererabotki (for Demidov).
(Grain handling machinery)

BULATOV, A.

Carry out water transportation of grain in an organized way.
Muk.-elev.prom. 21 no.4:27-28 Ap '55. (MLRA 8:7)

1. Sverdlovskaya normativno-issledovatel'skaya stantsiya
Zagotzerno
(Grain--Transportation)

BULATOV, A.; BUTKINA, Ye.

Increasing the utilization factor of the elevator leg. Muk.-elev.
prom.21 no.9:29 S'55. (MIRA 8:12)

1. Sverdlovskaya normativno-issledovatel'skaya stantsiya Zagotzerno
(Grain elevators)

BULATOV, A.

Mechanized loading-unloading, and storing of ear corn at grain procurement points. Muk.-elev.prom. 21 no.11:29 N '55.(MLRA 9:4)

1.Sverdlovskaya normativno-issledovatel'skaya stantsiya Zagotzerne.
(Corn (Maize)--Storage) (Grain handling)

BULATOV, A.

Improve the planning of the number of workers in grain procurement stations. Muk.-elev.prom. 22 no.5:30 My '56. (MLRA 9:9)

1.Sverdlovskaya normativno-issledovatel'skaya stantsiya Zagotzerna.
(Grain trade)

BULATOV, A.

BULATOV, A.

~~XXXXXXXXXXXX~~
Simplify wage payments to loaders. Sots. trud no.12:135 D '57.

(MIRA 11:1)

1. Zaveduyushchiy normativno-issledovatel'skoy stantsiyey Rosglavzerno.
(Loading and unloading--Production standards)

BULATOV, A.

BULATOV, A.

Introduce piecework at grain elevators. Muk.elev.prom. 23 no.9:16
S '57. (MIRA 10:11)

1. Sverdlovskaya normativno-issledovatel'skaya stantsiya.
(Wages) (Grain elevators)

BULATOV, A.

Introducing the seven-hour working day at grain milling enterprises.
Muk.-elev.prom. 26 no.1:13 Ja '60. (MIRA 13:6)

1. Sverdlovskaya normativno-issledovatel'skaya stantsiya.
(Grain milling) (Hours of labor)

SHISHCHENKO, R.; BULATOV, A.

"Techniques of oil well cementing." Reviewed by R. Shishchenko,
A. Bulatov. Neft. khoz. 40 no.5:71-72 My '62. (MIRA 15:9)
(Oil well cementing)

BULATOV, Aleksandr Aleksandrovich; BUTKINA, Ye.P.

[Receiving grain from combines at the Topchikha elevator]
Opyt priema zerna iz-pod kombainov na Topchikhinskom ele-
vatore. Moskva, Izd-vo tekhn. i ekon.lit-ry po voprosam
khleboproduktov, 1960. 24 p. (MIRA 15:8)
(Grain→Storage) (Grain elevators)

BULATOV, A.

PA 68T10

USSR/Aeronautics, Military
Flight Training

Apr 1948

"Methods of Assembling a Group of Planes," Lt Col A.
Bulatov, E. Kozlovskiy, 12 pp

"Vest Vozdukh Flota" No 4 (350)

Two basic methods for organizing flight of planes:
1) assembly in a loop on a linear orientation point;
and 2) assembly enroute, after passing a predeter-
mined control point. Discusses details and charac-
teristics of two methods which are particularly
applicable for rendezvousing fighter support for
bombers.

68T10

DOLAN, A. (Lt. Col.)

"Fixing the course by a 180 degree angle," The Herald of the Air Fleet, 1952.

BULATOV, A.

Subject : USSR/Aeronautics

AID P - 1552

Card 1/1 Pub. 135 - 5/18

Authors : Bulatov, A., Col., Dotsent, Kand. of Tech. Sci.,
Chemarda, Major, Arutnyunov, V., Guards Lt.Col.

Title : Reaching the target at a given time

Periodical : Vest. vozd. flota, 2, 25-35, F 1955

Abstract : The author discusses the following topics: 1. disparity of the true ground speed and the computed speed, 2. measurement of the length of the route in flight, 3. reaching the target at a given time by speed adjustment, 4. reaching the target at a given time by altering the prescribed route in order to lose excess time. Graphs, diagrams, formulae, examples.

Institution: None

Submitted : No date

BULATOV, A., kand.voyennykh nauk, polkovnik

"History of the Great Patriotic War of the Soviet Union." Vol. 3.
Starsh.-serzh. no.11:24-25 O[i.e. N] '61. (MIRA 15:2)
(World War, 1939-1945)

BULATOV, A., polkovnik

Navigator's computation of a landing from a line. Vest. Vozd.
Fl. no.12:33-34 D '61. (MIRA 15:3)
(Airplanes--Landing)

BULATOV, A., polkovnik, kand.voyennykh nauk

"Strategy of the missile age" by Bernard Brodie. Translated
from the English. Reviewed by A.Bulatov. Komm.Vooruzh.Sil 2
no.18:87-92 S '62. (MIRA 15:8)
(Strategy) (United States--Military policy) (Brodie, Bernard)

ISOLATION 5-10
VARVARZHOVSKIY, Ludvig [Varvarovsky, Ludvik]; GRACHEV, I.G.
[translator]; MEL'NIKOV, A.S. [translator]; PASHKOV, A.V.,
kand. voyen. nauk, polkovnik, red.; BULATOV, A.A., kand.
voya. nauk, polkovnik, red.; PAVLOV, P.L., red.; SRIBNIS,
N.V., tekhn. red.

[Maneuverability] Manevrennost'. Moskva, Voenizdat, 1963.
172 p. Translated from the Czech. (MIRA 16:10)
(Germany--Military maneuvers)
(Germany--Strategy)

1. 1077-07

ACC NR: AF6010569

(N)

SOURCE CODE: UR/0395/65/000/023/0018/0022

AUTHOR: Bulatov, A. (Colonel); Lyutov, I. (Colonel)

CRG: None

TITLE: Excellent knowledge of equipment is a most important factor for constant battle readiness

SOURCE: Kommunist vooruzhennykh sil, no. 23, 1965, 18-22

TOPIC TAGS: training procedure, military training, nuclear warfare training, scientific information ~~submarine warfare~~

ABSTRACT: The individual riflemen, squad, or crew member of a tank, artillery piece, or aircraft rarely had a serious effect on events in past wars. However, today the successful launching of an ICBM, a submarine missile, or a missile from an aircraft depends on each individual crew member, so military personnel must study higher mathematics and physics, the theory of jet engines, aero and hydrodynamics, radio engineering, chemistry, mechanics, nuclear energy, missile construction, electronics, cybernetics, and the design of various types of instruments. The role of the Communist Party, of commanders and of specialists in training the armed forces is discussed. Present deficiencies in training and suggested remedies for their elimination are pointed out, as is the need to train personnel in related specialties so they can

Card 1/2

L 10775-67

ACC NR: AP6010569

0

take over the jobs of their fellow crew members, if necessary. Suitable training aids are needed to assist in training. Only by study, and incorporation of the latest scientific developments into military operations, will the personnel be able to successfully carry out their missions in a modern war.

SUB CODE: 15/SUBM DATE: None

Card 2/2

L 0451b-67

ACC NR: AM6006728

(A)

Monograph

UR/

Bulatov, A. A. (Candidate of Military Science; Colonel); Prozorov, V. G. (Colonel)

Tactical surprise (Takticheskaya vnezapnost') Moscow, Voenizdat M-va 3
obor. SSSR, 65. 0165 p. illus. 5,500 copies printed. 1841

TOPIC TAGS: military action, limited warfare, ground force organization, military operation, combat surveillance, ground force tactics, hostile act

PURPOSE AND COVERAGE: This book describes the basic theoretical problems of ways and means of achieving a tactical surprise in different conditions of battle. Many good and useful examples from the Great Patriotic War are given. Something new is shown in the field of tactical surprise, which was realized after the appearance of new means and ways of war. Besides that, the problems of counteraction are brought about. This book is recommended for the wide circle of military personnel.

TABLE OF CONTENTS (abridged):

- Introduction --3
- Ch. I. The means of achieving the tactical surprise --10
- Ch. II. The conditions, which enable the tactical surprise and their skilful use --31
- Ch. III. The achievement of tactical surprise in attack --57
- Ch. IV. The achievement of tactical surprise in defense --99

Card 1/2

ACC NR: AM6006728

Ch. V. The achievement of surprise reconnaissance --116
Ch. VI. The enemy attack by surprise -143
Conclusion --165

SYB CODE: 15/ SUBM DATE: 20May65/ ORIG REF: 000/ OTH REF: 000

Card

2/2 *eq/2*

BULATOV, A.A., kand. voyennykh nauk, polkovnik; PROZOROV, V.G.,
polkovnik; DUKACHEV, M.P., polkovnik, red.

[Tactical surprise] Takticheskaya vnezapnost'. Moskva,
Voenizdat, 1965. 165 p. (MIRA 18:8)

KOLODNYI, Yuriy Izrailevich; PISKUNOV, P.I., zasl. deyatel'
nauki i tekhniki RSFSR, prof., doktor tekhn. nauk, red.;
BULATOV, A.A., red.; KNYAZEV, V.V., red.

[Operating non-gravel contact clarifiers; an exchange of
experiences] Opyt raboty kontaktnykh osvetlitatelei s bez-
graviinnoi zagruzkoi; obmen opytom. Gor'kii, Gor'kovskoe
knizhnoe izd-vo, 1963. 92 p. (MIRA 17:9)

BULATOV, Aleksandr Ivanovich; KRULEV, Georgiy Ivanovich; SOLOV'YEV, G.M.,
red.; DONSKAYA, G.D., tekhn. red.

[Prevention of accidents in automotive transportation] Preduprezhdenie dorozhno-transportnykh proisshestvii. Moskva, Nauchno-tekhn. izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 191 p. (MIRA 14:11)

(Transportation, Automotive) (Traffic safety)

ASHRAF'YAN, M.O.; BULATOV, A.I.

Investigating the permeability and carrying capacity of
cement plugs. Izv. vys. ucheb. zav.; neft' i gaz 7 no.11:
25-29 '64. (MIRA 18:11)

1. Groznenskiy neftyanoy institut i Krasnodarskiy filial
Vsesoyuznogo neftegazovogo nauchno-issledovatel'skogo insti-
tuta.

KARMANOV, I.A.; BULATOV, A.I.; GAYVORONSKIY, V.V.; OZERKOV, S.A.

Investigating the thickening of cement grouting at high temperatures
and pressures. Burenie no.7:23-27 '65. (MIRA 18:12)

1. Krasnodarskiy filial Vsesoyuznogo neftegazovogo nauchno-
issledovatel'skogo instituta.

Bulatov, A. I.

AUTHOR: Bulatov, A. I.

93-5-3/19

TITLE: Retarding Agents Delaying Setting Time of Cement Slurries
Used for Plugging Oil Wells (Zamedliteli srokov
skhvatyvaniya tsementnykh rastvorov pri tamponazhe
skvazhin)

PERIODICAL: Neftyanoye Khozyaystvo, 1957, Nr 5, pp. 6-10 (USSR)

ABSTRACT: The article deals with results of test conducted by the
Groznyy Scientific Research Institute (Groznnii).
Several chemical agents were subjected to an autoclave
test in order to determine their retarding effect on the
setting time of cement slurries used on oil well cement-
ing jobs. In high-temperature and high-pressure oil
wells retarding agents are added to cement slurries in
order that the cement may be placed in its proper position
before initial setting takes place. The author discusses
four retarding agents, namely: 1) SSB (sul'fit-
spirtovaya barda), a mixture of sulfite liquor and
residual liquid from distillation from alcoholic liquors;
2) KMT's (natriyevaya sol' karboksilmetiltsetsyulozy)
sodium salt of carboxymethyl cellulose; 3) VK (vinno-

Card 1/5

93-5-3/19

Retarding Agents Delaying Setting Time of Cement Slurries Used (Cont.)

kamennaya kislota) tartaric acid; 4) VKEK (1.25% vinno-kamennaya kislota, 0.25-0.5% bornaya kislota) a mixture of 1.25% tartaric acid and 0.25-0.5% boric acid. The first agent (SSB) is considered unstable and not very dependable. The KMTs does not form any foam (as does the SSB) in the cement slurry, is more stable, very active and delays the setting time of the cement slurries in direct proportion to its content in it. It is of an organic nature, fibrous in structure and white in color. A 10% aqueous solution is prepared by dissolving the KMTs at 60-80°C. When cooled off, it forms a very stable colloidal solution. Its negative characteristic is that if its content in the slurry is increased to 2-3% the fluidity of neat cement and of cement-sand slurry are lowered as shown in Table 1. When 0.5-0.6% of KMTs (based on the weight of the cement) is added to cement slurries, a sufficient pumpability and retarding effect on setting are obtained at temperatures of 140-150°C and pressures of 400-500 atm. At temperatures below 100°C and at atmospheric pressure, 0.5% of the reagent increases the time needed before initial setting 6-7-fold.

Card 2/5

93-5-3/19

Retarding Agents Delaying Setting Time of Cement Slurries Used (Cont.)

By raising the temperature to 140°C and the pressure to 400 atm, the retarding effect of the KMTs decreases, but by adding 0.5-0.6% of KMTs the time before setting takes place is sufficiently long for cementing operations (Table 2). Subsequently the author discusses the mechanical strength of the hardened cement, concluding that the presence of 0.5% of KMTs does not significantly lower the strength of the hardened cement. The hardness of the cement may be increased by lowering its water content. Tests have been conducted in order to determine the initial and final setting time of cement slurries (water-cement ratio being 1:2, KMTs content 0.5%) at temperatures ranging from 90° to 200°C and pressures from 1 to 700 atm. The test results (Table 3) showed that the KMTs ceases to act as a delaying agent at 170°C and 600 atm. At these temperatures and pressures the KMTs, SSB, starch and other high molecular organic delaying agents decompose and may have an adverse effect on the slurry. The data in Table 4 show the effect of the KMTs and SSB agents at 200°C and 700 atm on the strength of the hardened cement containing those agents. Tests were also conducted with an ordinary window glass, kept in alkaline medium for 48 hours at 200°C and 700 atm.

Card 3/5

93-5-3/19

Retarding Agents Delaying Setting Time of Cement Slurries Used (Cont.)

When heated, it becomes plastic and, after cooling, it becomes brittle and can be easily ground to powder. Another delaying agent, namely the VK, is considered very stable especially at a 90°C (Table 5). At 170°C and 600 atm the initial setting of a cement slurry treated with 1.25% VK takes place within 1 h 40 min. to 1 h 50 min. By raising the temperature to 200°C and the pressure to 700 atm. (1% VK) this setting time is reduced to 15 min. Slurries treated with VK form first a very hard crust, followed by a rapid setting of the rest of the slurry. The VKBK agent proved to be a satisfactory delaying agent at these temperatures and pressures (200°C, 700 atm.) It has no considerable effect on the fluidity of the slurry and raises the mechanical strength of the hardened cement (Table 6). In conclusion the author states that at temperatures ranging from 170 to 200°C and pressures exceeding 600 atm.: 1) complex silicates (cement, glass) undergo great changes, their mechanical strength drops sharply and the setting time is reduced considerably; 2) high molecular organic compounds (SSB, starch, KMTs) decompose and, consequently, they cannot be used at temperatures higher than

Card 4/5

Retarding Agents Delaying Setting Time of Cement Slurries Used (Cont.)^{93-5-3/19}

150°C and pressures higher than 550 atm.; 3) the VK is a good delaying agent for the temperature range between 150 to 170°C and pressures from 500-600 atm.; 4) for temperatures from 170 to 200°C and pressures from 600-700 atm. the combination reagent VKBK is recommended; 5) a 2:1 cement-sand mixture is best for high strength hardened cement; 6) all organic delaying agents reduce the strength of hardened cement, except the VK and VKBK reagents which have an opposite effect. There are six tables, one figure and one slavic reference.

AVAILABLE: Library of Congress

Card 5/5

BULATOV, A. I.: Master Tech Sci (diss) -- "The role of the mechanical strength of cements in packing oil wells, and changes in their properties at high temperatures and pressures". Baku, 1958. 13 pp (Min Higher Educ USSR, Azerb Order of Labor Red Banner Industrial Inst im M. Azizbekov), 150 copies (KL, No 6, 1958, 132)

Sov/93-58-4-3/19

AUTHOR: Machinskiy, Ye.K.; Stafikopulo, A.N.; and Bulatov, A.I.

TITLE: Unburned Slag and Sand Cements for Plugging Wells Having Bottom Hole Temperatures up to 200°C (Shlako-pe.schanyye bezobzhigovyye tsementy dlya tamponazha skvazhin s zaboynymi temperaturami do 200°C)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 4, pp 15-20 (USSR)

ABSTRACT: The article presents laboratory data on unburned slag and sand cements for plugging oil wells with bottom hole temperatures up to 200°C. This type of cement was developed by the GrozNII laboratory on the basis of research carried out by G. Sivertsev [Ref. 11] and R.M. Lezhoyev of the Giprotsement Institute [Ref.7]. The laboratory experiments were carried out with pulverized slag similar in fractional composition to the cement produced by the Karadag plant. The flow test was carried out by the AzNII cone method, and the modulus of activity which is the relation

$$\frac{Al_2O_3}{SiO_2}$$

cordance with the GOST 3476-52 specification. The setting time and hardness were determined by means of autoclaves of GrozNII design. Table I shows the setting time of the slag slurries in relation to the storage time of the pulverized slag. The tests have established that the blast furnace slag from the metallurgical plants im. Stalin and "Svobodnyy sokol" are most suitable for the production of plugging cements, and that the slag from the Frunze metallurgical

Card 1/2

Unburned Slag and Sand Cements (Cont.)

Sov/93-58-4-3/19

plant is unsuitable. It was also determined that the setting time and strength of such cements can be controlled by additions of silica or silica-magnetic sands. At temperature ranging from 150 to 200°C and pressures from 500 to 700 atm. the setting time was from several minutes up to 24 hours, depending on the sand content. After 48 hours of hardening the strength of the cement began to vary. But cements containing standard additions of sand displayed greater strength than GOST 1581-42 specification plugging cement. The authors conclude that research in slag cement must continue in 1958, but that the available data make it possible to produce an experimental batch of slag cement for testing in deep wells. There are 11 Soviet references and 1 table.

1. Petroleum industry 2. Wells--Maintenance 3. Cement--Properties 4. Slags
Card 2/2 --Applications 5. Wells--Temperature factors

AUTHOR: Bulatov, A.I., Engineer SOV/28-58-5-32/37

TITLE: The Demands of Practice (Trebovaniya praktiki)

PERIODICAL: Standartizatsiya, 1958, Nr 5, p 95 (USSR)

ABSTRACT: The article deals with the cement used in plugging oil wells. After pouring, a certain period has to be allowed for the cement to solidify sufficiently to permit further drilling operations to be carried out. Concepts as to the proper length of this waiting period differ, but the author concludes that in practice, 24 hours is sufficient for operational columns and 10 hours for technical columns. There is 1 table.

ASSOCIATION: Groznenskiy neftyanoy nauchno-issledovatel'skiy institut
(Grozny Scientific-Research Institute for Petroleum)

1. Cement--Performance 2. Wells--Drilling 3. Petroleum

Card 1/1

MACHINSKIY, Ye.K.; BULATOV, A.I.

Effect of temperature and hardening time on the specific weight
of cement rock. Izv. vys. ucheb. zav.; neft' i gaz 2 no.7:115-116
'59. (MIRA 12:12)

1. Groznenskiy neftyanoy institut.
(Cement)

BULATOV, A.I.

Importance of the mechanical strength of cement for oil well
cementing. Izv.vys.ucheb.zav.; nef't' i gaz 2 no.12:131-133
'59. (MIRA 13:5)

1. Groznenskiy nef'tyanoy institut.
(Oil well cementing)

MACHINSKIY, Yevgeniy Konstantinovich; BULATOV, Anatoliy Ivanovich; FILIPENOK,
T.G., red.; KUZ'MENKOVA, N.T., tekhn. red.

[Cement and cinder-sand slurries for plugging wells] TSementno- i
shlako-peschanye rastvory dlia tamponazha skvazhin. Groznyi, Checheno-
Ingushskoe knizhnoe izd-vo, 1960. 90 p. (MIRA 14:7)
(Oil well cementing)

MACHINSKIY, Ye.K.; BULATOV, A.I.

Cement-based fluids for plugging wells under complex conditions.
Gaz. prom. 5 no. 12:7-12 D '60. (MIRA 14:1)
(Gas wells) (Drilling fluids)

MACHINSKIY, Ye.K., BULATOV, A.I.

Slag-sand cement slurry with unground quartz sand developed by
the Groznyy Petroleum Research Institute. Neft. khoz. 38 no.3:62-
64 Nr '60. (MIRA 13:7)

(Oil well cementing)

BULATOV, A.I.

It is necessary to revise the All-Union State Standards in
connection with plugging cements. Neft. khoz. 38 no.10:55-58
0 '60.

(Oil well cementing)

(MIRA 13:9)